

Western Great Basin Interagency Fire Weather Operating Plan -2003-

SIGNATORY PAGE

Meteorologic Services Division
Western Region
National Weather Service
National Oceanic and
Atmospheric Administration

Date: _____

Fire Management Officer
Nevada State
Bureau of Land Management
United States Department of Interior

Date: _____

Program Manager - Fire
Nevada Division of Forestry
State of Nevada

Date: _____

Forest Fire Management Officer
Humbolt-Toiyabe National Forest
United States Department of Agriculture

Date: _____

Western Great Basin Interagency Fire Weather Operating Plan

-2003-

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I - Introduction

This document contains the 2003 operating plans for the Western Great Basin Fire Weather Districts. It should be retained for your use until the issuance of the 2004 operating plan. This plan describes the fire weather forecast services provided by the National Weather Service (NWS) offices in Reno, Elko and Las Vegas, Nevada as well as predictive services offered by meteorologists at the Western Great Basin Coordination Center (WGBCC) in Reno, Nevada. Weather observation sites required from fire management agencies as input for the National Fire Danger Rating System (NFDRS) are listed and spot forecast request procedures are explained. Copies of this document can be requested from the Reno NWS office or the WGBCC. Copies of the Eastern Great Basin Fire Weather Operating Plan can be requested from the Boise NWS office (208-334-9862) and is available on the Boise NWS web site (www.wrh.noaa.gov/Boise/firewx.htm).

Three NWS offices and WGBCC meteorologists will provide fire weather forecast services for the western Great Basin:

Reno NWS	-	Western Nevada and portions of Eastern California
Elko NWS	-	Northern and East Central Nevada
Las Vegas NWS	-	Southern Nevada and Northwest Arizona
WGBCC	-	Longer range outlooks for all of Nevada

The operating plan for each district, as well as other fire weather forecast information and web-based spot forecast request capability can be found on the appropriate web sites:

Reno NWS	-	www.wrh.noaa.gov/Reno/fire
Elko NWS	-	www.wrh.noaa.gov/Elko/firewx/fire.html
Las Vegas NWS	-	www.wrh.noaa.gov/Lasvegas/fire.shtml
WGBCC	-	www.nv.blm.gov/

II - What's New for 2003

A. Amended Red Flag Criteria

Red Flag Criteria for the 2003 Fire Season has changed to better reflect observed critical weather patterns. Sustained wind criteria for Red Flag events has been dropped from 10+ hours to 8+ hours.

B. Fire Weather Zone Boundary Changes and New Zone Numbers in the NWS Reno District

Fire Weather Zone numbers and boundaries in the Reno Fire Weather district have changed. For a more detailed description of the new zones, please refer to Reno Fire Weather section.

C. New certified IMETs in Reno and Elko

D. Temperature Level Forecast Changes for the Elko District

The temperatures and humidities will now be forecast at the valley floors and at mid-slope.

E. Chance of Wetting Rain added to WFO Reno and Elko Fire Weather Forecast

The forecast element Chance of Wetting Rain (CWR) has been added to the Fire Weather Forecast in the Reno and Elko Fire Weather districts. CWR is defined as the probability, in percent, that precipitation measuring 0.10" or greater will be received during the forecast period.

F. Chance of Rain added to WFO Las Vegas Fire Weather Forecast

The forecast element of Chance of Rain (COR) has been added to the Fire Weather Forecast in the Las Vegas Fire Weather District. COR is the probability that measurable rain will be received during the forecast period. There was no consensus among the three different regions in the Las Vegas forecast area (NV, AZ, CA) as to the definition of a wetting rain, so the decision was made to not use that term and just forecast chance of rain.

G. The spot forecast will no longer contain a Valid Until Statement

III. WESTERN GREAT BASIN COORDINATION CENTER

Western great Basin Coordination Center (WGBCC) is an interagency operation. The primary mission of the Center is to establish priorities and provide resource support from the functional areas of overhead, crews, aircraft, supplies, and equipment to the field for wildland fire and other emergency operations. The Center is responsible for the Geographic Area which covers all of Nevada and the California portions of the Humboldt-Toiyabe National Forest. WGBCC also serves as the dispatch center for the BLM Boise Smokejumpers.

- A. HOURS OF OPERATION. WGBCC is open year-round. Hours and days of operation are closely tied to fire activity locally as well as throughout the nation during periods of support to other areas.

January 1 - June 1.....0700-1630 Monday - Friday
June 1 - October 15.....0600-2000 Sunday - Saturday
October 15 - December 31.....0700-1630 Monday - Friday

- B. CONTACT INFORMATION

Nelda Vorce	Center Manager
Paul Bannister	Assistant Center Manager
Emil Magallanes	Operations Coordinator
Richard Woolley	Meteorologist/Program Manager
Fred Svtez	Meteorologist/Assistant Program Manager
Kathy Wiegard	Intelligence Coordinator

- C. OFFICE TELEPHONE, FAX AND ADDRESS

Western Great Basin 24 hour number:	775-861-6455
Western Great Basin 800 number:	800-633-6097
Fax Number:	775-861-6459

Office Address: Western Great Basin Coordination Center
1340 Financial Blvd.
Reno, NV 89502

D. WEB INFORMATION

Western Great Basin Coordination Center Web Page Address:
<http://www.nv.blm.gov/WGBCC>

IV. WESTERN GREAT BASIN PREDICTIVE SERVICES PROGRAM

- A. OPERATIONAL SUPPORT AND PREDICTIVE SERVICES. Interagency Fire meteorologists at WGBCC combine forecast information from NWS and other sources into area-wide summaries and briefings. These meteorologists work in conjunction with the Intelligence section to form the Predictive Services Group, which produces integrated fire weather/fire danger assessment/situational reporting/and resource status for the entire Western Great Basin Area. The intent of Predictive Services is to provide strategic, geographic area and local information to assist in the preparedness, movement and allocation of firefighting resources. WGBCC Predictive Services is the exclusive provider of fire danger and potential forecasts with the WGBCC beyond the next day NFDRS forecasts provided by the NWS. All products and services are available on-line and can be obtained from the WGBCC web site.
1. Daily Area Fire Weather/Behavior Outlooks. Combination graphic/text products based off summarization of NWS fire weather narrative forecasts into a 12-24 hour outlook of significant fire weather parameters. When a Fire Behavior Analyst is assigned to Predictive Services (generally Preparedness Levels 3, 4 & 5), the product will contain both weather and fire behavior information. During the fall, winter and spring the outlook may contain regional ventilation and smoke dispersion information if needed.
 - a. Issuance Schedule:
Summer: May 15 - September 30 (Up to twice daily)
Fall: September 30 - December 1 (As requested)
Spring: March 1 - May 15 (As requested)
 2. 10 Day Fire Weather/Danger Outlook. Observed and forecast ERC (Energy Release Component from the NFDRS) values for groupings of RAWS that have similar weather and fire history. General 10 day weather trends will be used to predict ERC and critical fire weather patterns and events will be highlighted.
 - a. Issuance Schedule:
Approximately May 15 - September 30, updated every Tuesday and Friday afternoon by 1700 PDT.
 3. Monthly and Seasonal Fire Potential Outlooks. Utilizes all available weather, climate and fire danger information to make longer-term

predictions of fire business potential. Outlooks will highlight time frames and potential for large fire activity and resource utilization relative to normal.

- a. Issuance Schedule (Monthly):
Year round, a few days before the end of each month.
- b. Issuance Schedule (Seasonal):
Two to three times per year, with a preliminary issuance in March and a primary outlook issued by the end of May. A final seasonal outlook update may be issued by the end of June.

B. PROGRAM MANAGEMENT. Management of federal land management and fire agencies' fire weather programs and responsibilities:

- 1. RAWS/NFDRS. Will coordinate issues and concerns with the U.S. Forest Service Regional RAWS Coordinator and the BLM-NIFC RAWS Program Manager. Will monitor RAWS operations and inform the appropriate agency of problems, make suggestions/recommendations, etc.
- 2. Liaison - Predictive Services Group Leader/Fire Weather Program Manager will be the primary liaison between fire managers and various service providers including NWS, the private sector and the research community.

C. MONITORING, FEEDBACK AND IMPROVEMENT OF FIRE WEATHER INFORMATION. WGBCC meteorologists will monitor all sources of fire weather information to ensure consistency, quality and applicability. Where issues arise, data will be archived and brought to the attention of the provider to enhance awareness and work towards improvement. Some priorities include:

- 1. NFDRS forecast consistency with station climate histories.
- 2. General forecast parameter consistency across Nevada, especially across forecast area and land management unit boundaries.
- 3. Accuracy and applicability of Red Flag Warnings.
- 4. Quality of fireline observations and spot forecast feedback.
- 5. Overall adherence to policies and procedures set forth in AOP.

D. TECHNOLOGY TRANSFER. WGBCC meteorologists will work to integrate advance technology analytical and prediction systems into fire management planning and operations. Some efforts will include:

- 1. Numerical modeling of weather and smoke dispersion.
- 2. Proper use of RAWS and NFDRS.
- 3. Research and development of advanced fire meteorology.

E. AGENCY COMPUTER SYSTEMS. Where fire management computer systems like WIMS are locally available, access to the systems will be granted to NWS to

provide or develop services, as needed. Costs will be borne by the Interagency Wildland Fire Agencies for requirements that are beyond the distribution of weather information through a central communications gateway.

F. FIRE WEATHER OBSERVATIONS

1. RAWs & NFDRS Observations for stations that desire next day forecasts will be entered into WIMS no later than 1350 LST (1450 LDT). Observations from RAWs sites will be the latest data available from the satellite interrogation. RAWs and NFDRS stations are expected to be sited and maintained according to NWCG PMS 426-3 "National Fire Danger Rating System Weather Station Standards."
2. Fireline Observations & Spot Forecast Feedback. Fireline observations are recommended when requesting a spot forecast. Fire management agency personnel should take standard fireline observations of temperature, humidity, wind speed and direction and weather/sky condition consistent with guidance provided in NFES 2140 "Weather Station Handbook - An Interagency Guide for Wildland Managers." Spot Forecast Feedback and Validation - Feedback on spot forecasts is recommended in order to validate forecasts and improve accuracy.

- G. Any questions concerning Western Great Basin Predictive Services should be directed to Richard Woolley, Program Manager.

Phone: 775-861-6455

Email: Richard.Woolley@nv.blm.gov

V. JOINT RESPONSIBILITIES

- A. A brief coordination call will be made the Weather Service prior to morning briefings. The GACC meteorologist will participate in the Weather Service Nevada state coordination call each afternoon. Start up date for these calls will be coordinated by the Weather Service.
- B. Briefings - Either NWS or WGBCC meteorologists will conduct briefings upon request, time and resources permitting. WGBCC meteorologists will provide briefings for strategic planning purposes and will refer the requesting entities to the local NWS office or offices for specific, operationally oriented information.

Fire weather forecasts and briefings are conducted on the Nevada Fire Operations Call which is held daily at 0930 PDT June-September.

Fire weather forecasts and briefings are also provided for the Great Basin Multi-Agency Coordinating Group (MAC) and the Great Basin Center Managers call as required or requested during fire season. Contact WGBCC for specific times and conference bridge numbers.

VI - Red Flag Program

a. Fire Weather Watch

A Fire Weather Watch will be issued when the forecaster is reasonably confident that a “Red Flag Event” will occur. A watch should be issued 24 but no more than 72 hours in advance of the event’s expected onset. **A watch may be issued in the first 12 hour time period only for expected Dry Lightning Events.**

b. Red Flag Warning

A Red Flag Warning is issued within 24 hours of expected occurrence. A warning is intended to tell the user that critical fire weather patterns are occurring or are imminent.

c. Cancellations

Prompt cancellation of either a watch or a warning is required. The forecaster shall promptly cancel any Fire Weather Watch or Red Flag Warning when it is no longer valid.

d. Red Flag Criteria for Nevada ***

see next page

Local Red Flag Criteria
NEVADA

IF

10-hour fuel moisture 5% or less
and
Live fuel moisture index 120% or less

THEN

if any of the following are expected:

1. Dry Thunderstorms expected over 15% or more of the forecast area
2. Forecast minimum relative humidity of 15% or less *and* sustained winds (20 foot - 10 min avg) expected of 20 MPH or more for 8+ hours
3. Forecast minimum relative humidity of 15% or less *and* widespread wind gusts (instantaneous) expected of 35 MPH or more for 3+ hours
4. In the judgement of the forecaster, weather conditions will create a critical fire control situation. These conditions may include strong microburst winds, cold frontal passage or strong wind shift, and extremely hot and dry conditions.

Issue the appropriate watch/warning

ELSE

No watch or warning required

*** Note: For the Lake Tahoe Basin, Fire Weather Zone 272, the minimum Relative Humidity for wind events is 20% or less.

VII - Training

Training for the weather sections of S-190 and S-290, etc. can be provided at customer request. Requests can be made at any time during the year to any of the three NWS offices serving the Western Great Basin. Although most requests will be met, there will be times when the training cannot be provided due to staffing issues at the WFOs and other constraints during the dates of the course. In these cases, please provide alternative dates so the appropriate training can be scheduled. If alternative dates are not an option, one of the NWS offices will help the customer find another trainer in an adjacent WFO or Geographic Area Coordination Center.

VIII - Forecast Examples

Afternoon Narrative Forecast:

FNUS55 KVEF 201410
FWFVEF

PRESUPPRESSION FIRE WEATHER FORECAST FO:
SOUTHERN NEVADA, NORTHWEST ARIZONA AND SOUTHEAST CALIFORNIA
NATIONAL WEATHER SERVICE LAS VEGAS, NV
700 AM PDT SUN APR 20 2003

.DISCUSSION...HIGH PRESSURE OVER THE SOUTHERN GREAT BASIN AND THE MOJAVE DESERT WILL BRING TEMPERATURES UP NEAR NORMAL TODAY. ANOTHER PACIFIC STORM WILL BEGIN TO MOVE INTO THE WEST COAST EARLY MONDAY FOR INCREASING WINDS AND A CHANCE OF SHOWERS OVER CENTRAL NEVADA. COOLER TEMPERATURES AND A CHANCE OF SHOWERS WILL THEN SPREAD DOWN INTO SOUTHERN NEVADA AND NORTHWEST ARIZONA ON TUESDAY. ANOTHER PACIFIC STORM WILL FOLLOW BY THURSDAY AND FRIDAY FOR CONTINUED COOL AND UNSETTLED WEATHER.

NOTE: THUNDERSTORMS IMPLY GUSTY AND ERRATIC WINDS.

NOTE: PLEASE SEE OPERATING PLAN FOR DETAILED ZONE DESCRIPTIONS AT:
[HTTP://WWW.WRH.NOAA.GOV/LASVEGAS/FIRE/FIRE/FIRE.SHTML](http://www.wrh.noaa.gov/lasvegas/fire/fire/fire.shtml)

NVZ015-210100-
NORTHEAST ZONE 456-
LINCOLN COUNTY-
700 AM PDT SUN APR 20 2003

.TODAY...

SKY/WEATHER.....PARTLY CLOUDY.

MAX TEMPERATURE:

4000 FEET.....68-72.

7000 FEET.....56-62.

24 HR TREND.....2 DEGREES WARMER.

MIN HUMIDITY:

4000 FEET.....19-21%

7000 FEET.....21-25%

24 HR TREND.....UP SLIGHTLY.

WIND - 20 FT (10 MIN AVG):

SLOPE/VALLEY.....UPSLOPE/UPVALLEY 3-8 MPH...BECOMING SOUTH
5-12 MPH IN THE AFTERNOON.

RIDGETOP.....SOUTH 10-20 MPH.

CHANCE OF RAIN.....0 PERCENT.

LAL.....1.

HAINES INDEX.....4.

MIXING HEIGHT.....10500 FT AGL.

TRANSPORT WINDS.....SOUTH 15 KTS.

VENTILATION.....EXCELLENT.

.TONIGHT...

SKY/WEATHER.....PARTLY CLOUDY.

MIN TEMPERATURE:

4000 FEET.....38-42.

7000 FEET.....29-33.

24 HR TREND.....6 DEGREES WARMER.

MAX HUMIDITY:

4000 FEET.....55-60%

7000 FEET.....77-85%

24 HR TREND.....UP SLIGHTLY.

WIND - 20 FT (10 MIN AVG):
 SLOPE/VALLEY.....DOWNSLOPE/DOWNVALLEY 4-9 MPH.
 RIDGETOP.....SOUTH 15-20 MPH.
 CHANCE OF RAIN.....0 PERCENT.
 LAL.....1.
 HAINES INDEX.....4.

.MONDAY...
 SKY/WEATHER.....PARTLY CLOUDY. A CHANCE OF SHOWERS OVER NORTHERN
 LINCOLN COUNTY AND A SLIGHT CHANCE OF THUNDERSTORMS IN
 THE AFTERNOON. SNOW LEVEL NEAR 7500 FEET.

MAX TEMPERATURE:
 4000 FEET.....68-72.
 7000 FEET.....54-60.
 24 HR TREND.....DOWN SLIGHTLY.

MIN HUMIDITY:
 4000 FEET.....22-24%
 7000 FEET.....29-31%
 24 HR TREND.....UP 2-5%.

WIND - 20 FT (10 MIN AVG):
 SLOPE/VALLEY.....SOUTH 10 MPH IN THE MORNING INCREASING TO 20 MPH IN THE
 AFTERNOON.
 RIDGETOP.....SOUTH 20-25 MPH.
 CHANCE OF RAIN.....30 PERCENT NORTH OF PIOCHE.
 LAL.....1 UNTIL NOON THEN 2..
 HAINES INDEX.....4.
 MIXING HEIGHT.....12600 FT AGL.
 TRANSPORT WINDS.....SOUTH 20 KTS.
 VENTILATION.....EXCELLENT.

.EXTENDED...
 .TUESDAY...MOSTLY CLOUDY. CHANCE OF RAIN AND SNOW SHOWERS. SNOW LIKELY IN THE
 MOUNTAINS. SNOW LEVEL NEAR 5000 FEET. HIGH IN THE MID 40S. CHANCE OF PRECIPITATION 40
 PERCENT. WEST WIND 5-15 MPH.
 .WEDNESDAY...PARTLY CLOUDY. LOWS IN THE UPPER 20S. HIGHS IN THE MID 50S. NORTHWEST
 WIND 5-15 MPH.
 .THURSDAY...MOSTLY CLOUDY. CHANCE OF RAIN SHOWERS. LOWS IN THE LOWER 30S. HIGHS IN
 THE UPPER 50S. SOUTHWEST WIND 10-20 MPH.

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Spot Forecast:

SPOT FORECAST FOR LOW BURN
ISSUED BY NATIONAL WEATHER SERVICE LAS VEGAS
1210 PM PDT FRI APR 18 2003

DISCUSSION...ANOTHER IN A SERIES OF UPPER LEVEL LOWS WILL PASS THROUGH THE AREA THIS AFTERNOON AND TONIGHT. THIS WILL TRIGGER THUNDERSTORMS AND RAINSHOWERS IN THE MOIST AND UNSTABLE AIR OVER THE REGION. THE STORMS ARE NOT EXPECTED TO BE STRONG BUT PEA SIZED HAIL IS POSSIBLE. BEGINNING SATURDAY MORNING A CLEARING AND WARMING TREND IS EXPECTED THROUGH MONDAY MORNING.

FOR PLANNED IGNITION TIME OF 1400 4/18/03

WEATHER.....CLOUDY WITH RAIN SHOWERS AND THUNDERSTORMS.
CHC OF WETTING RAIN.....80%
TEMPERATURE.....MAX 50.
HUMIDITY.....MIN 40%
20-FT WIND.....SOUTHEAST 5-10 MPH.
MIXING HEIGHT.....8000 FT AGL.
MIXING WINDS.....WEST 5-10 KTS.

FOR TONIGHT

WEATHER.....CLOUDY WITH A CHANCE FOR RAIN SHOWERS.
CHC OF WETTING RAIN.....40%
TEMPERATURE.....MIN 30.
HUMIDITY.....MAX 95%
20-FT WIND.....NORTHEAST 5 MPH.
MIXING HEIGHT.....2500 FT AGL.
MIXING WINDS.....NORTHWEST 5 KTS.

OUTLOOK FOR TOMORROW

WEATHER.....CLOUDY EARLY...BECOMING SUNNY BY MID MORNING..
CHC OF WETTING RAIN.....20% EARLY MORNING.
TEMPERATURE.....MAX 51
HUMIDITY.....MIN 35%
20-FT WIND.....NORTH 10-15 MPH.
MIXING HEIGHT.....7200 FT AGL.
MIXING WINDS.....NORTH 10 KTS.

FORECASTER...

IX - APPENDICES

A. FIRE WEATHER RENO

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1. ORGANIZATIONAL DIRECTORY

All National Weather Service (NWS) offices can fulfill spot forecast requests 24 hours a day, seven days a week throughout the year. Depending on the severity of the situation, forecasters will also update routine fire weather zone forecasts, fire weather watches and Red Flag warnings 24 hours a day, seven days a week.

A. 2003 Fire Weather Season

May 12th - November	24 hours a day	7 days a week
November - May 5th (“off-season” format)	24 hours a day	7 days a week

Note: Transition to the “off-season” format will depend on the onset of winter storms and cooler weather.

B. Fire Weather Management Staff

Jane Hollingsworth (Jane.Hollingsworth@noaa.gov)	Meteorologist In Charge (MIC)
Rhett Milne (Rhett.Milne@noaa.gov)	Fire Weather Program Manager (IMET)
Wendell Hohmann (Wendell.Hohmann@noaa.gov)	Senior Forecaster (IMET trainee)
Roger Lamoni (Roger.Lamoni@noaa.gov)	Warning Coordination Meteorologist (WCM)
Jim Fischer (Jim.Fischer@noaa.gov)	Science and Operations Officer (SOO)

Office Address: National Weather Service
2350 Raggio Parkway
Reno, NV 89512

B. Office Telephone and Fax Numbers

Fire Weather Number:	775-673-8105
Fax Number:	775-673-8110

D. Web Information

Reno Fire Weather Web Page Address: <http://www.wrh.noaa.gov/reno/fire>

In conjunction with the Western Great Basin Geographic Area Coordination Center (GACC), the Reno NWS office will continue to provide an Internet Briefing page. This page is typically used to provide weather graphics and enhance weather understanding during the 9:30 a.m. Western Great Basin coordination call as determined by the GACC.

2. BASIC METEOROLOGICAL SERVICES

A. Areal Coverage and Fire Weather Zone Configuration

The Reno Fire Weather District covers portions of western Nevada, northeast California and the east slopes of the Sierra Nevada. There are nine (9) fire weather zones in the Reno District.

B. Zone Descriptions

See Section 4.

C. Forecast Types and Issuance Times

<u>Forecast</u>	<u>Issuance Time</u>
1. Morning Fire Weather Forecast	0730
2. Afternoon Fire Weather Forecast	1500-1530
3. Spot Forecasts -	AS REQUESTED
4. NFD RS Trend Forecasts	1510-1530
5. Red Flag Warnings and Fire Weather Watches	WHEN CRITERIA HAS BEEN FORECAST OR OBSERVED
6. Updates to All Products	WHEN CHANGES TO FORECAST ARE EXPECTED OR OBSERVED

D. Spot Forecasts

Spot forecasts are prepared upon request. Spot forecasts will be written for a 36-hour period, unless requested otherwise. In 2003, "web based" spot requests are preferred, with faxed Form D-1 requests as a back-up method. Fax spot requests should be sent to 775-673-8110. Whenever a spot request has been made, a confirmation call to 775-673-8105 is requested to ensure the spot was received.

It is vital to the prescribed burn or wildfire that the following be submitted to the NWS in order to make a quality and representative forecast which in turn makes for the best possible fire behavior forecasts:

1. Representative Observations from:
 - a. the site where the burn will occur and
 - b. the time at which the burn will occur.
2. Proper location: township and range or latitude and longitude.
3. For prescribed burns, please provide the NWS with as many representative observations as possible before you actually submit the spot request. Also provide the NWS with ample notice that you will be doing a prescribed burn.
 - a. If you are able to notify us a day or two in advance, this will allow us to reduce turnaround time in providing the spot.
4. In essence, the more information you can provide us for any type of spot forecast request, the better our forecast service for you will be.

E. Service Back-Up

In the event of an emergency that prevents WFO Reno from providing normal fire weather services to you, the following offices will provide back-up products and services:

Primary	WFO Elko	775-778-6720
Secondary	WFO Sacramento	916-979-3047

The Western Great Basin Coordination Center (775-861-6455) will be notified whenever another office has assumed fire weather product and service responsibility. WFO Reno will notify the Coordination Center when we are able to resume normal forecast operations.

3. SPECIAL METEOROLOGICAL SERVICES

A. Onsite Services

There is one certified IMET and one IMET Trainee at the Reno-NWS available for on-site fire weather services.

Rhett Milne (Rhett.Milne@noaa.gov)	(IMET)
Wendell Hohmann (Wendell.Hohmann@noaa.gov)	(IMET Trainee)
Work phone 775-673-8105	

4. Reno Fire Weather District Zone Descriptions

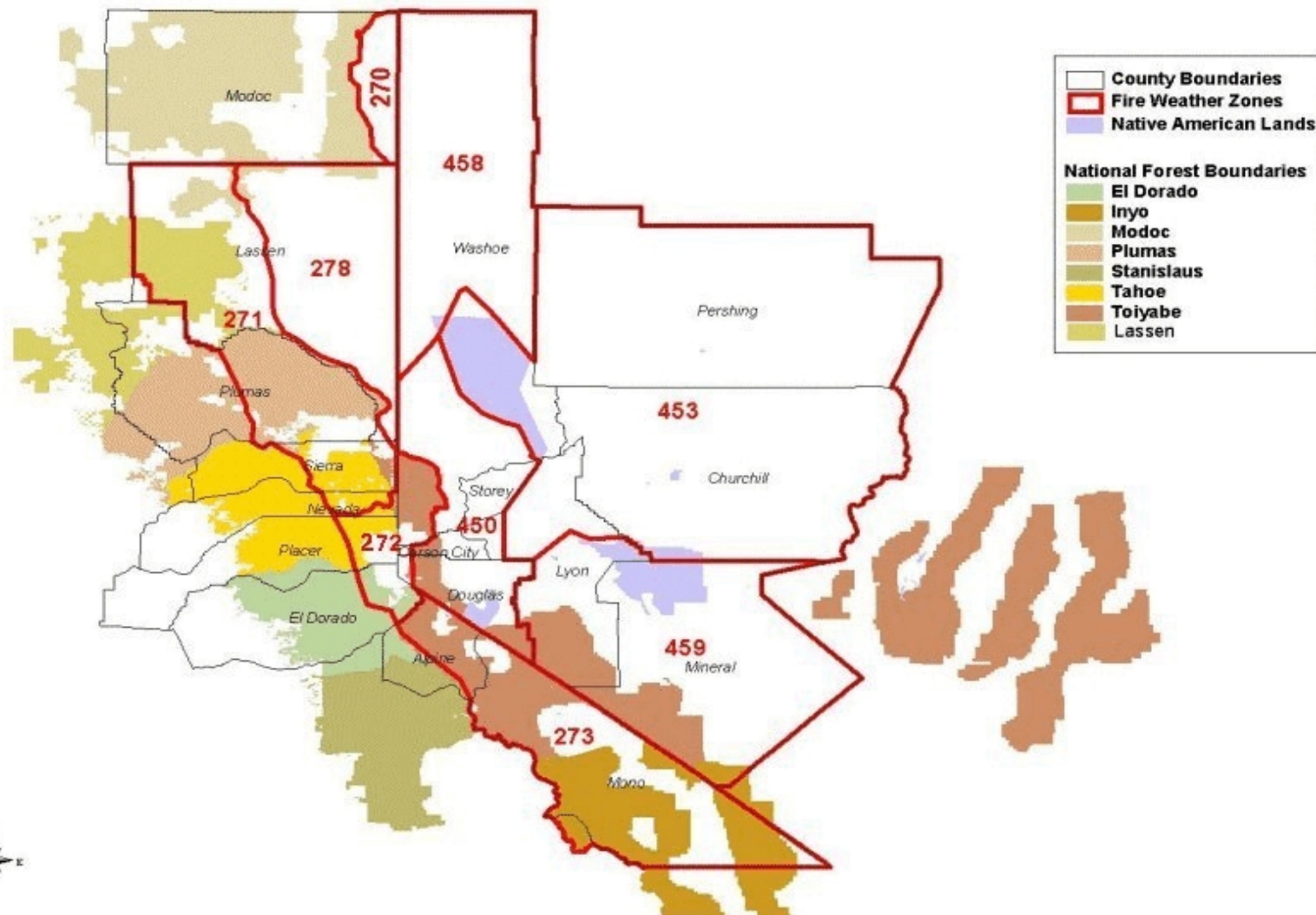
- 1. CA Zone 270:** Extreme eastern Modoc County. Bounded by Oregon to the north, the Warner Mountains to the west, and Zone 458 to the east. Includes all Federal and state lands and the Surprise Valley.
- 2. CA Zone 271:** All federal and state lands in western Lassen County and eastern Plumas, Sierra, and Nevada counties including portions of the Lassen, Plumas, and Tahoe National Forests.
- 3. CA Zone 272:** The Lake Tahoe Basin. Bounded by the Sierra Nevada crest to the west, Zone 273 to the south, Interstate 80 to the north, and Zone 450 to the east. Includes the Carson Range and Peavine Peak in the Humboldt/Toiyabe National Forest, eastern portions of the El Dorado and Tahoe National Forests, State Parks near Lake Tahoe, the Desolation Wilderness, and the Crystal Range. Includes extreme eastern Placer, El Dorado, Nevada, and Sierra counties, extreme western Douglas and Carson City counties in Nevada, and extreme southwest Washoe county.

4. **CA Zone 273:** East Central California. Includes the Humboldt-Toiyabe National Forest east of the Sierra Nevada crest, Mono county including Mono Lake, eastern Alpine county, and portions of the Inyo National Forest.
5. **CA Zone 278:** All federal and state lands in most of eastern Lassen county (excluding the Warner Mountains).
6. **NV Zone 450:** Extreme Western Nevada. Bounded by California and Zone 272 to the west, Zone 273 to the south, Zones 459 and 453 to the east, and Zone 458 to the north. Includes all federal and state lands, mountain ranges and valleys in Storey county, the eastern 3/4 of Douglas and Carson City counties, extreme western Lyon county, and southern Washoe county (except the extreme southwest). Includes the Virginia Range and Pine Nut Mountains.
7. **NV Zone 453:** The west-central portion of Nevada including all federal and state lands, mountain ranges and valley in Pershing and Churchill counties, east-central Washoe county, and northern Lyon county. Includes the Stillwater and Humboldt mountain ranges, Lahontan Reservoir, and Pyramid Lake.
8. **NV Zone 458:** Extreme Northwest Nevada. Bounded by Oregon to the north, Humboldt and Pershing counties to the east, and Zones 270 and 278 to the west. Includes all federal and state lands, mountain ranges and valleys in northern Washoe county, including the Smoke Creek Desert, and the western 1/4 of the Sheldon National Wildlife Refuge.
9. **NV Zone 459:** All federal and state lands in Mineral and southern Lyon counties. Bounded by California and Zone 450 to the west, Zone 453 to the north, and Esmeralda and Nye counties to the south and east. Includes the Humboldt Toiyabe National Forest, the Wasuk Range, and the Excelsior Mountains.

5. MAP

See map on next page.

WFO Reno Fire Weather Forecast Zones



6. Nevada Fire Weather Observation Sites in the Reno Fire Weather District

<u>STATION</u>	<u>STN NO.</u>	<u>RAWS ID</u>	<u>COUNTY</u>	<u>ST / AGENCY</u>	<u>LOCATION</u>	<u>SEC</u>	<u>TWP</u>	<u>RNG</u>	<u>ELEV</u>
<u>NV ZONE 450</u>									
Galena	260108		Washoe	NV NDF	39:22:54 119:48:54	34	18N	19E	5800
Desert Springs	260114	325556E4	Washoe	NV BLM	39:40:26 119:46:04	20	21N	20E	5280
Fish Springs	261204	32541714	Douglas	NV BLM	38:56:10 119:29:07	5	12N	21E	5120
<u>NV ZONE 453</u>									
Bluewing	260202	325BF274	Pershing	NV BLM	40:30:06 119:07:18	1	30N	25E	4569
Dead Camel	260701	325C2628	Churchill	NV BLM	39:15:20 118:57:35	10	16N	27E	4490
Siard	260402	325BD498	Pershing	NV BLM	40:23:40 117:37:30	8	29N	39E	4598
<u>NV ZONE 458</u>									
Barrel Springs	260111	32578578	Washoe	NV BLM	41:54:40 119:56:20	14	46N	18E	5835
Juniper Springs	260112	325736E6	Washoe	NV BLM	41:04:51 119:46:35	18	37N	20E	5348
Buffalo Creek	260113	3254A49A	Washoe	NV BLM	40:34:55 119:47:24	5	31N	20E	3890
Catnip Mountain	260109	326500E8	Washoe	NV BLM	41:55:15 119:29:42	10	46N	22E	5740
Fox Mountain	260110	327E2232	Washoe	NV BLM	41:00:33 119:33:47	12	36N	21E	6890
<u>NV ZONE 459</u>									
Brawley Peak	261301	325C13B2	Mineral	NV BLM	38:15:55 118:51:23	28	5N	28E	8080

Note: All Raws ID numbers contain no "OH'S" they are all zeros.

The California Fire Weather Observation Sites are outlined in the 2003 California Fire Weather Operating Plan

B. FIRE WEATHER ELKO

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1. Organizational Directory

A. Normal Fire Weather Working Hours:

A forecaster will be available to answer questions and complete spot forecasts 24 hours a day, 7 days a week, year-round. Routine fire weather forecasts will begin May 5th twice per day, 5 days a week. On May 27th, routine fire weather forecasts will be issued twice per day, 7 days a week through late October. (A later date can be arranged if deemed necessary.) Outside of these periods, the off-season format of the fire weather forecasts will be issued once per day.

B. Staff

Kevin Baker (kevin.baker@noaa.gov)

Meteorologist-in-Charge

Jim Wallmann (james.wallmann@noaa.gov)

Fire Weather Program Manager
IMET

Zaaron Allen (zaaron.allen@noaa.gov)

Assistant Fire Weather Program
Manager

Bob Hoenisch (robert.hoenisch@noaa.gov)

IMET Trainee

Paul Eyssautier (paul.eyssautier@noaa.gov)

Warning Coordination Meteorologist

Steve Apfel (steven.apfel@noaa.gov)

Science Operations Officer

Office Address: National Weather Service
3720 Paradise Drive
Elko, NV 89801

C. Office Telephone and Fax Numbers

Fire Weather Forecast: (775) 778-6720
Fax number: (775) 778-9786

D. Web Information

Elko Fire Weather Web Page Address: <http://www.wrh.noaa.gov/Elko/firewx/fire.html>

2. Basic Meteorological Services

A. Areal Coverage and Fire Weather Zone Configuration

The Elko fire weather district covers much of northern and central Nevada. WFO Elko has 5 fire weather zones (figure 1, section V). Forecasts are prepared for each weather zone or group of zones.

B. Zone Descriptions

See section IV of this plan.

C. Forecast Types and Issuance Times

- | | |
|---|---------------------------------------|
| 1. Morning Fire Weather Forecast Update | 0700-0730 |
| 2. Afternoon Fire Weather Forecast | 1500-1530 |
| 3. Spot Forecasts | As requested |
| 4. Red Flag Warnings/Fire Weather Watches | When forecasts meet Criteria (fig. 2) |
| 5. NFDRS forecasts | 1450-1510 as requested |
| 6. Updates to all products | When warranted |

D. Fire Weather Forecast format

The format is listed at the front of this document. However, one change has been made for the 2003 season. Chance of wetting rain will be included in the forecast. A wetting rain is defined as one-tenth of an inch of rain or more (0.10").

E. Spot Forecasts

To request a spot, either use the phone and fax numbers provided in Section I - C or via the web address listed in Section I - D.

F. Backup

Should WFO Elko not be able to provide fire weather services in the event of an emergency, the following offices will provide backup:

Primary	WFO Reno	(775) 673-8106
Secondary	WFO Salt Lake City	(801) 524-5066

The office assuming backup responsibility will call the appropriate coordination center so that the customers will know where to direct spot forecast requests and other weather coordination issues. Backup offices have the capability to carry out the full fire weather operations of the forecast office requesting backup. At the end of backup operations, WFO Elko will notify the appropriate coordination center. The following coordination centers should be contacted for the WFO Elko area of responsibility:

Western Great Basin Coordination Center	(775) 861-6455
---	----------------

3. Special Meteorological Services

A. On-Site Services

There is one certified Incident Meteorologist (IMET) available during the 2003 fire season. In addition, WFO Elko will also have an IMET trainee available for on-site training.

Jim Wallmann (IMET) - James.Wallmann@noaa.gov 775-778-6720 (work)
775-397-0284 (cell)

Bob Hoenisch (IMET Trainee)- Bob.Hoenisch@noaa.gov 775-778-6720 (work)

4. Elko Fire Weather Zone Names and Boundaries

1. Nevada Zone 451

The northwest portion of Nevada including all federal and state lands, mountain ranges, and valleys in Humboldt County. This includes the Sheldon National Wildlife Refuge and the Santa Rosa Range in the Humboldt National Forest.

2. Nevada Zone 452

The northeast portion of Nevada including all federal and state lands, mountain ranges, and valleys in Elko County and the northern 1/4 of both Lander and Eureka Counties generally north of I-80. This includes the Independence, Bull Run, East Humboldt and Ruby Mountains in the Humboldt and Toiyabe National Forest.

3. Nevada Zone 454

The central portion of Nevada including all federal and state lands, mountain ranges and valleys in that part of Lander and Eureka Counties generally south of I-80 and north of U.S. 50. This includes the northern portions of the Shoshone, Toiyabe, Monitor, and Antelope Ranges in the Humboldt and Toiyabe National Forest.

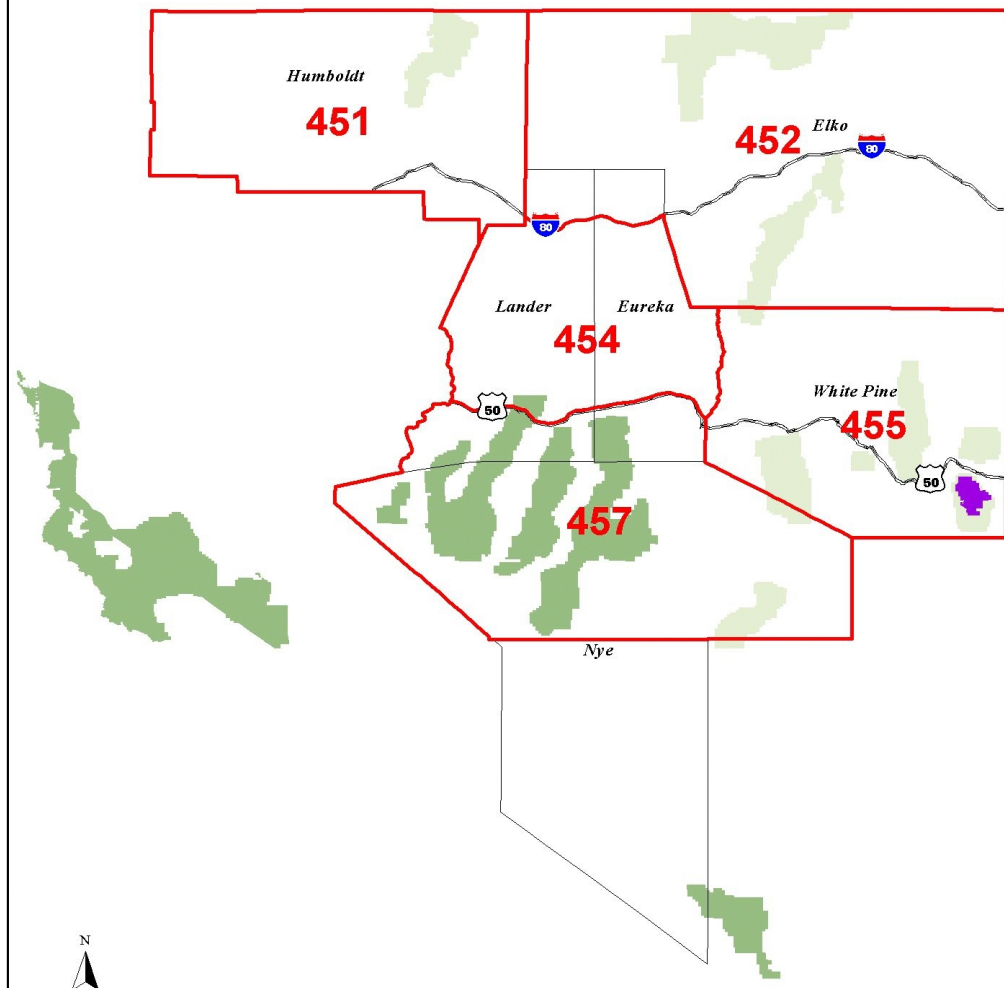
4. Nevada Zone 455

The east central portion of Nevada including all federal and state lands, mountain ranges and valleys in White Pine County. This includes Great Basin National Park, and the White Pine, Schell Creek, Snake, and Egan Ranges in the Humboldt and Toiyabe National Forest.

5. Nevada Zone 457

The central portion of Nevada including all federal and state lands, mountain ranges and valleys in the northern 1/2 of Nye county and Lander and Eureka Counties south of U.S. 50. This includes most of the Shoshone, Toiyabe, Monitor, Antelope, and Quinn Canyon Ranges in the Humboldt and Toiyabe National Forest.

WFO Elko Fire Weather Forecast Zones



Legend	
	Highways
	County Boundaries
	Fire Weather Forecast Zones
	Great Basin National Park
National Forest Boundaries	
	Humboldt
	Toiyabe

6. Fire Weather Observation Stations

STATION	STN. NO	RAWS ID	COUNTY	AGENCY	LOCATION		ELEV
				Lat	Lon		
<u>ZONE 451</u>							
Dry Canyon	260203	325BE102	Humboldt	BLM	41:29:30	119:07:00	4900
Morey Creek	260204	325C00C4	Humboldt	BLM	41:27:21	117:38:00	5500
Texas Springs	260206	32560196	Humboldt	BLM	41:48:06	118:27:03	5760
Winnemucca	260201	ASOS	Humboldt	NWS	40:54	117:43	4313
<u>ZONE 452</u>							
Antelope Lake	260310	32539334	Elko	BLM	41:41:05	116:45:52	5460
Crane Springs	260314	325BB17E	Elko	BLM	40:27:35	115:51:00	6400
Elko	260303	ASOS	Elko	NWS	40:50:22	115:47:38	5050
Long Hollow	260305	325BA208	Elko	BLM	41:32:19	116:13:03	5820
Rock Spring Creek	260309	325217DA	Elko	BLM	41:38:35	114:26:15	5400
Spring Gulch	260308	3252D2C4	Elko	BLM	40:35:35	114:12:10	5470
Spruce Mountain	260306	325B9792	Elko	BLM	40:26:25	114:48:40	6100
Stag Mountain	260313	325BC7EE	Elko	BLM	41:31:04	115:23:34	6790
<u>ZONE 454</u>							
Battle Mountain	260691	Manual	Lander	NWS	40:36:43	116:53:31	4540
Beacon Light	260505	3250874C	Lander	BLM	40:33:30	116:45:30	4800
Coils Creek	260603	3252723C	Eureka	BLM	39:50:00	119:29:30	6800
Eureka (Apt.)	262708	ASOS	Eureka	NWS	36:36	116:00	5936
Flat Spring	109791	324DE652	Eureka	BLM	39:50:59	116:33:29	7701
Red Butte	260504	32530656	Lander	BLM	39:59:00	117:19:00	5050
<u>ZONE 455</u>							
Alligator Ridge	260804	32548276	White Pine	BLM	39:44:13	115:31:05	6560
Baker Flat	260806	FA62B64C	White Pine	NPS	39:00:07	114:13:03	6840
Cattle Camp	260807	3257A394	White Pine	BLM	38:54:13	114:48:51	7300
Cedar Pass	260805	3255C386	White Pine	BLM	39:45:25	114:08:57	7185
Ely (Apt)	260801	ASOS	White Pine	NWS	39:17:42	114:50:23	6262
Ely	261407	32566470	White Pine	BLM	36:17:52	114:50:10	6590
Mather		FA6290A0	White Pine	NPS	39:01:22	114:16:20	9268
<u>ZONE 457</u>							
Austin	260507	Manual	Lander	NWS	39:29:46	117:04:19	6605
Combs Canyon	260601	325C50B8	Eureka	BLM	39:22:53	116:10:30	6590
Currant Creek	261406	3257036C	Nye	BLM	38:45:31	115:24:46	5580
Desatoya Mountain	260503	325C6522	Lander	BLM	39:18:04	117:35:04	6200
Pancake	261404	325C86D0	Nye	BLM	38:18:13	116:11:33	5200
Washington		325027B4	Nye	BLM	39:09:17	117:16:18	7160

B. FIRE WEATHER LAS VEGAS

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1. ORGANIZATIONAL DIRECTORY

A. Work Hours

A qualified Meteorologist is available 24 hours a day, seven days a week, 365 days a year to provide fire weather services as needed. The twice a day, in-season routine narrative fire weather forecasts and afternoon NFDRS trend forecasts will normally be issued from mid April through October but adjustments to this schedule may be made based on fire danger and weather conditions.

B. Staff

Kim Runk	(Kim.Runk@noaa.gov)	Meteorologist In Charge (MIC)
Jim Harrison	(Jim.Harrison@noaa.gov)	Fire Weather Program Manager and IMET
Andy Bailey	(Andy.Bailey@noaa.gov)	WCM
Stan Czyzyk	(Stan.Czyzyk@noaa.gov)	SOO

Office Address: National Weather Service
 7851 Industrial Rd.
 Las Vegas, NV 89139

C. Office Telephone and Fax Numbers

Fire Weather Number: 702-263-9750
Fax Number: 702-263-9759

D. Web Information

Las Vegas Fire Weather Web Page Address:
<http://www.wrh.noaa.gov/lasvegas/fire.shtml>

2. BASIC METEOROLOGICAL SERVICES

A. Areal Coverage and Fire Weather Zone Configuration

The Las Vegas Fire Weather District covers roughly the southern third of Nevada. Las Vegas has 1 Fire Weather Zone in Nevada, zone 456, which is routinely divided into 3 parts for the narrative forecast; northwest, northeast and south. Forecasts are prepared following the morning and afternoon formats. An example of the narrative forecast is provided in the general section of the plan. The format for the narrative forecast is the same for off-season as it is for in-season but is issued only in the morning.

B. Zone Descriptions

Zone 456: Southern Nevada. Including all federal and state lands, mountain ranges and valleys in Esmeralda, Lincoln, Clark, and the southern ½ of Nye counties. Including the Mt. Charleston Wilderness Area, the Red Rock National Conservation Area, and Spring Mountains in the Humboldt/Toiyabe National Forest, the Lake Mead National Recreational area, the Desert National Wildlife Range, the Valley of Fire State Park. Northwest zone 456 is defined as Esmeralda and southern Nye counties, Northeast zone 456 is Lincoln County and south zone 456 is Clark county. See map on page 17.

C. Forecast Types and Issuance Times

<u>Forecast</u>	<u>Issuance Time</u>
A. Morning Fire Weather Forecast	0700
B. Afternoon Fire Weather Forecast	1500
C. Spot Forecasts	As requested
D. Red Flag Warnings and Fire Weather Watches	When Red Flag conditions expected
E. Updates to All Products	When warranted

D. Red Flag Warning and Fire Weather Watches Definitions

1. Fire Weather Watch

A Fire Weather Watch will be issued when the forecaster is reasonably confident that a “Red Flag Event” will occur. A watch should be issued 24 but no more than 72 hours in advance of the event’s expected onset. A watch may be issued in the first 12 hours time period only for Dry Lightning Events.

2. Red Flag Warning

A Red Flag Warning is issued within 24 hours of occurrence. A warning is intended to tell the user that critical fire weather patterns are occurring or are imminent.

3. Cancellations

Prompt cancellation of either a watch or a warning is required. The forecaster shall promptly cancel any Fire Weather Watch or Red Flag Warning when it is no longer valid.

E. Spot Forecasts

Spot forecasts will be written upon request. Spot forecasts will be written for a 36 hour period, unless requested otherwise. See spot format. Customers should request spot forecasts using the web-based spot request program found in the fire weather portion of our web page. Check only the parameters needed for the periods needed. Requests can still be done by fax as a backup and the request must include the D-1 form. Items 1-12 should be filled out in order to receive a spot forecast.

We request that you call the office to verify that we actually received the spot forecast request.

It is vital to the prescribed burn or wildfire that the following be submitted to the NWS in order to make a quality and representative forecast which in turn makes for the best possible fire behavior forecasts:

1. Representative Observations from:
 - a. the site where the burn will occur and
 - b. the time at which the burn will occur.
2. Proper location (township and range/ or lat lon) of the burn.
3. If it is a prescribed burn, provide the NWS with as many representative observations before you actually submit the spot forecast request. Also provide the NWS with ample notice that you will be doing a prescribed burn.
 - a. If you are able to notify us a day or two in advance, this will normally allow us to reduce turnaround time in providing the spot.
4. Spot Forecast Feedback:

This is especially important if the burn or fire is going to last for several days and spot forecasts will be requested each day. Feedback regarding the actual versus forecast weather will enable us to “fine tune” subsequent forecasts for that area.

F. Service Back-Up

In the event of emergency that prevents WFO Las Vegas from providing normal fire weather services to you, the following offices will provide back-up products and services:

Primary	WFO Reno	775-673-8105
Secondary	WFO Elko	775-778-6720

The Western Great Basin Coordination Center (775-861-6455) will be notified whenever another office has assumed fire weather products and service responsibility. WFO Las Vegas will notify the Coordination Center when we are able to resume normal forecast operations.

G. Ventilation

Mixing Height, Transport winds and a categorical ventilation are provided for the first two daytime periods in the routine narrative forecasts. Mixing height is forecast for one point in each sub-zone and is given in feet above ground level (AGL). The transport wind is the average wind within the mixed layer and is given in knots. Ventilation is the product of mixing height and transport wind.

Note that the ventilation is only for the single points provided and may differ in other locations.

The following categories are used to describe the ventilation:

Excellent	100,000 kt-ft or greater
Very good	70,000-99,999 kt-ft
Good	40,000-69,999 kt-ft
Fair	20,000-39,999 kt-ft
Marginal	8,500-19,999 kt-ft
Poor	less than 8,500 kt-ft

Example: If the mixing height is expected to reach 10,000 ft AGL and the transport wind speed is expected to be 15 knots, the ventilation is $10,000 \times 15 = 150,000$ kt-ft which falls within the excellent category.

3. SPECIAL METEOROLOGICAL SERVICES

A. Onsite Services

There is one qualified IMET in the Las Vegas office available for onsite weather services:

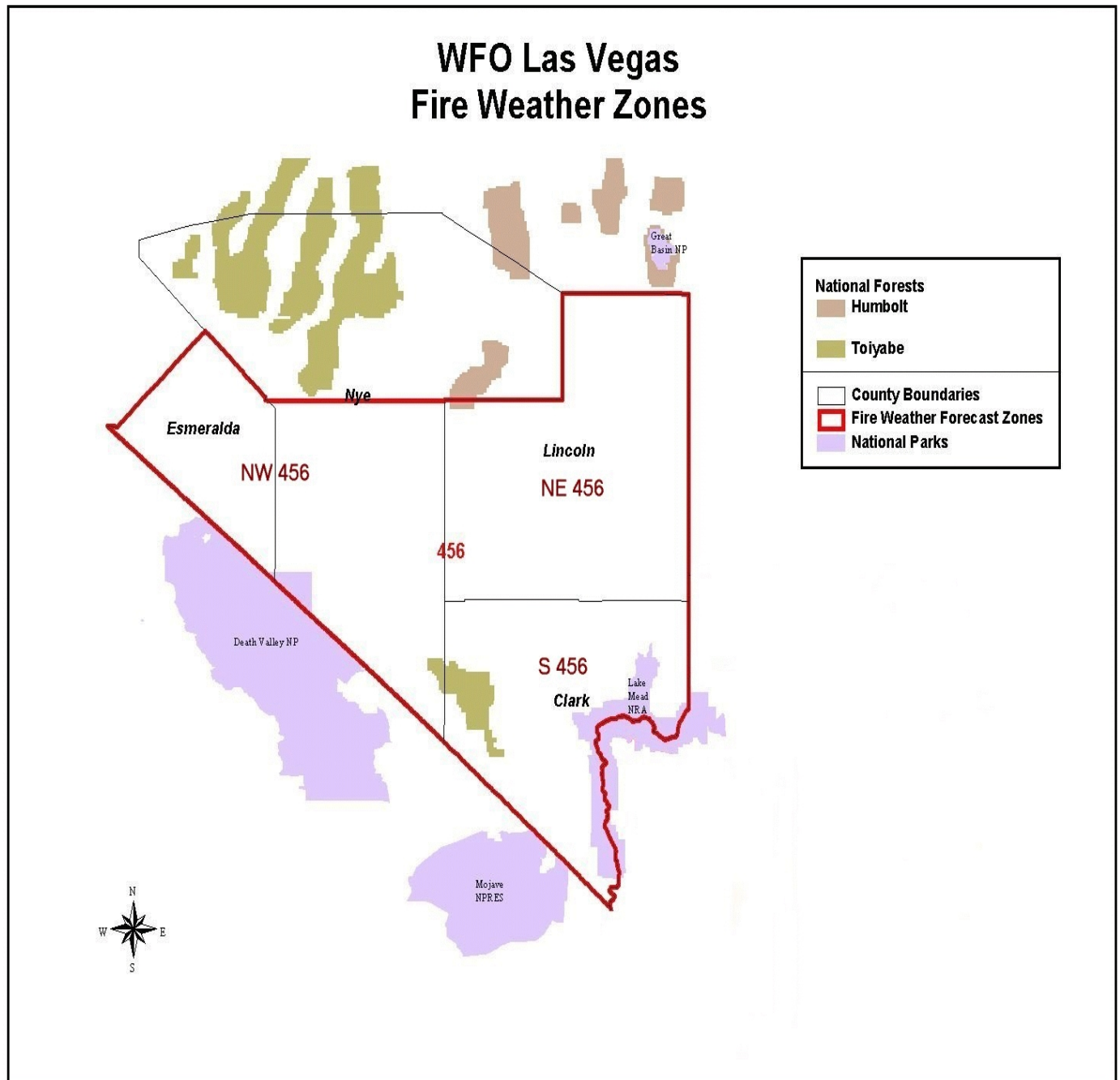
Jim Harrison - jim.harrison@noaa.gov

Work phone: 702-263-9750

4. Fire District MAP

See next page

4. FIRE WEATHER DISTRICT MAP (NEVADA)



5. Nevada Fire Weather Observation Stations

<u>STATION</u>	<u>STN NO.</u>	<u>RAWS ID</u>	<u>COUNTY</u>	<u>ST</u>	<u>AGENCY</u>	<u>LOCATION</u>	<u>SEC</u>	<u>TWP</u>	<u>RNG</u>	<u>ELEV</u>
ZONE 456										
Kyle Canyon	261702	FTS	Clark	NV	Toiyabe NF	36:50:00 115:38:00	32	19S	57E	7200
Mountain Springs	261708	FTS	Clark	NV	Toiyabe NF	36:20:00 115:52:00	20	22S	57E	5600
Fire Base LMNRA	261709	Manual	Clark	NV	LMNRA	35:58:52 114:50:46	4	23S	64E	2294
Royston Hills	261501	325C7654	Esmeralda	NV	BLM	38:15:47 117:30:58	30	5N	40E	5100
Oriental Wash	261502	325C95A6	Esmeralda	NV	BLM	37:14:07 117:29:47	26	8S	41E	4100
Kane Springs	261604	325CC5DA	Lincoln	NV	BLM	37:15:00 114:42:30	16	8S	65E	4590
Pahrump	261405	325CB34A	Nye	NV	BLM	36:10:12 116:06:40	22	24N	8E	2600
Big Bend	261704	325CA03C	Clark	NV	BLM	35:07:30 114:42:30	15	32S	65E	1000
Red Rock	261705	32516644	Clark	NV	BLM	36:08:07 115:25:38	12	21S	58E	3760
Toquop Wash	261607	32567706	Lincoln	NV	BLM	36:55:24 114:11:56	5	12S	70E	2446
Immigration Wash	261608	3255B516	Lincoln	NV	BLM	37:55:17 114:09:35	29	1N	70E	6230
Christmas Tree	261707	325077C8	Clark	NV	BLM	35:16:13 114:46:58	1	31S	64E	3450
Caliente	261601	3257B0E2	Lincoln	NV	BLM	37:36:40 114:31:35	7	4S	67E	4380
Desert NWR	261710	8374B696	Clark	NV	FWS	36:34:45 115:08.38	33	15S	61E	7120
Yucca Gap	261711		Clark	NV	FWS	36:26:24 115:21:01	32	17S	59E	3580

Note: All RAWS ID numbers contain no "OH'S" they are all zeros.

The California and Arizona Fire Weather Stations are outlined in the California Fire Weather Operating Plan, and the Southwest Fire Weather Operating Plan, respectively.

D. Requesting Spot Forecasts over the Internet

The Internet should be the primary method for requesting spot forecasts for your agency whenever possible. Web based spot requests are typically fulfilled sooner and more accurately than using the faxed D-1 format. Of course, the D-1 form should still be used as a back-up when Internet requests are not possible. Whenever a spot request is made, please call the NWS office responsible for fulfilling your request to confirm receipt.

Spot forecasts via the Internet should be sent to the appropriate offices:

Reno Fire Weather District - Western Nevada and Eastern California
www.wrh.noaa.gov/reno/Firewx/index.html

Elko Fire Weather District - Northern and East Central Nevada
www.wrh.noaa.gov/elko/firewx/fire.html

Las Vegas Fire Weather District - Southern Nevada and Northwest Arizona
www.wrh.noaa.gov/lasvegas/fire.htm

Simply click on the “Spot Forecasts” button from any of the above web pages.

The main spot forecast page updates every minute and shows you the location and status of any spot forecasts that have already been requested for today. You can view these other forecasts as well as request a new sport forecasts of your own.

Each request has its own web page where all the information about that request s displayed, including maps, information about the request and, eventually, the forecast. Sensitive information about the request (such as phone numbers, names of contact persons, and the exact location of the burn) is NOT visible by everyone, ONLY on the computer that made the request and NWS computers.

When you request a new spot forecast, you provide information in a web-based form that is similar to the D-1 form that you may be used to using. The information you provide on the form is checked for consistency, and after you complete the form, the NWS is notified of a new request and a new web page is created for this burn.

Once you have submitted a request, you will probably want to view the web page for your burn - or chick back frequently to view its status. To view the web page for any burn or wildfire, go to the main spot forecast web page, click either on the name of the burn in the listing, or on the dot in the map for the burn. This page will also automatically update every minute so that when new information becomes available, you will see it right away. If we find any errors in your request, we might even send you a question that will show up on this page. You can answer the question, or make other changes to your request from this web page, but ONLY from the computer that made the original request. Since the forecast screen is automatically updated every minute, you will see the forecast within a minute of it being issued.

When the forecast is complete, you can print the web page, or do whatever you want with the information. From the main spot forecast page, you have the ability to switch to a similar screen for days other than today. You can use this to send us feedback on earlier forecasts, or to copy the information from one request to a new request for today.

If you have questions or problems, each office is still available by phone. The phone numbers are listed on page 1, and also in each office’s operating plan in Appendices A, B, and C. Please continue to call the numbers for your local office when you send a web spot request to ensure that we have received the request.

Spot Forecast Monitor

The main spot forecast monitoring page shows you all of today's spot forecasts on the map and also in the list at the bottom of the page.

This page auto-updates every minute, so as new spot forecasts are requested or their status changes, you immediately see the changes on the page.

The dots on the map show the locations of the burns, and the status of the spot forecast requests. Green squares indicate requests that are still pending. Purple squares indicate burns where questions have been asked. Red squares indicate burns where the forecasts have been completed. You can either click on the dots on the map, or the list of spot names at the bottom of the page to view the individual web page for each request.

You can use the arrow buttons next to the date to view spot requests from other days, or you can use the "CALENDAR" link to move to other days more quickly.

To request a spot forecast, click on the button labeled "Submit a new Spot Request," and you will be taken to the Spot Forecast Request Form.

Spot Forecast Request Form

You fill in this form with the information needed to request a spot forecast.

The first time you fill out a spot forecast, almost all the boxes will be empty. After that, many of the boxes will be filled in with information that shouldn't change very much from one request to another (such as your name and phone number).

The elements highlighted in red are required for us to complete your spot forecast. While the other items may not be necessary, they are very important to our ability to make an accurate and useful forecast.

The form is broken into seven sections. Let's look at each section individually, and the parameters you will need to fill in.

Project Name Section

You need to provide a name for your project. The name cannot be the same as any other project issued - and you will be alerted if you pick a name the same as an existing burn. One option of avoiding this potential problem would be to increment the spot name. E.g. Tabor Creek 1, Tabor Creek 2, etc.

You should use the buttons to indicate whether the fire is a Wildfire, WFU or Prescribed Fire (prescribed fire is chosen by default when you enter the form). For prescribed fires, you should indicate the ignition time and date using a 24-hour clock (and the time zone if necessary). The form defaults to an ignition time about ½ hour into the future.

If the spot request is not related to a wildfire or prescribed burn (HAZMAT spill, replanting, wildlife transfer, aerial spraying operation, etc.) please indicate this clearly in the project name and/or the comments section. References to ignition time in the spot forecast will then indicate the start of the non-fire related project.

Requesting Agency Section

You need to tell us who you are! Here you provide your agency name, your phone number for both voice and fax (please include the area code) and your name. All this information will be helpful to us if there are problems or questions and we need to contact you. You will only need to enter this information

the first time you request a spot forecast. After that, it will be filled in with the same information as your last request.

Location Section

In this section you tell us the precise location of the burn. You can either specify the legal location or the latitude/longitude. If you use the legal method, you should provide something like: T5N R12E Sec 24. If you use the latitude/longitude method, you can either specify degrees like: 45.1486 or in degrees/minutes/seconds like: 45 13 33.

If you can, please specify the name of the 7 ½ minute USGS quadmap where the burn is located. We will check that against the legal or lat/lon location that you give. The elevation (in feet) at the top and bottom of the burn should be entered in the “Elevation” boxes. If the burn is on flat ground, you can enter a value in only one of the boxes. Enter the name of the nearest drainage in the “Drainage” box. This helps us further locate the burn when the legal or lat/lon location still leave some ambiguity. Enter the slope aspect, such as NE or S (or possibly FLAT) in the “Aspect” box. This helps us further locate the burn. Also please enter the size of the burn (in acres) in the “Size” box.

Fire Danger Assessment:

Fuel Section

Please indicate the type of fuel, either using fuel model numbers, or a description of the fuel such as “grass,” “ponderosa pine,” etc. Also, if you can indicate the amount of fuel sheltering, it help us tremendously in providing accurate wind forecasts.

Observation Section

In this section you provide us with local observations near the burn. For each observation we need where it is in relation to the burn (for example, “base camp,” “1 mile NW” or something like that), the elevation (in feet) and the time (preferably using a 24-hour clock). The wind (in miles per hour can be specified as “N12 Gust 25” or something like that. The temperature and wet-bulb values (in degrees F) should be entered and the rH (in percent) and Dewpoint (in degrees F) can also be entered if known (they will actually be calculated from the Temperature/Wet-bulb/Elevation if you do not provide them). Finally, any remarks about clouds, weather or other important information should be entered in the final box. If you have more than 4 observations (and we like that!) please put them in the comments section below (or fax them to us).

Forecast Elements Section

Not all spot forecasts are created equal! In this section we are asking you to tell us what are the forecast elements you need, or are particularly important. If you have a grass fire that will be out by later today, we don’t want to waste time worrying about the temperature for tomorrow, unless you really need it. Likewise, if the wind direction is particularly important for you, we want to know about it. Pick the parameters that you need for today, tonight and tomorrow. If we think something is particularly noteworthy, we will let you know - even if you don’t request it. If you are submitting a request in the evening for the next day - keep in mind that you are requesting parameters for the day of the burn. For wildfires, we will provide all parameters (except smoke dispersion), so you do not need to waste time filling this in, unless you have a parameter that is particularly critical for you (in which case, this is a good place to indicate that).

Comments Section

If there is something else you think we need to know, or something you couldn’t fit elsewhere on the form, please enter it here. There is virtually no limit to what you can put here.

Submit the Form

When you are ready to submit the form, just click on the “Submit Request” button at the bottom of the page. If you want to cancel the request you can click on the “Cancel Request” button, and if you want to clear the form and start over again, you can click on the “Clear Form” button.

When you submit the form, various checks are performed on the data you have entered. Some problems make it impossible for your request to be accepted (for example, if you forget to enter a name for the burn), which will produce warnings and messages for your information. If an error is found, you will be given the opportunity to go back and fix the form, or cancel the request. Once you are confident there are no more errors in your request, it will be submitted and we will be automatically notified through our computer systems. If you have the time, we appreciate it if you could still call us, just in case something goes wrong on the web and we don’t get notified of your request.

Spot Forecast Webpage

After you have submitted a spot forecast request, an individualized spot forecast webpage becomes available for that burn. This page automatically updates every minute so that as new information becomes available for the burn, you see it immediately. Detailed maps of the area around the burn are generated and displayed when they become available. Keep in mind that “sensitive” information, like your name, phone number, and the exact location of the burn are NOT visible to others - only to you and the NWS.

If we have questions about your request, we may send you back a question about it. If this happens, you will see a big red box in the forecast page, with our question. Usually, there is some problem with the request that you can probably fix (use the links at the bottom of the page to change the request) or you can call us.

When your forecast is complete, it will show up in the spot forecast webpage automatically, and a box to provide feedback will become available. We hope that you can provide us feedback with how the forecast worked out, perhaps later in the day or several days down the road. This feedback helps us tremendously in improving our forecasts.

At the bottom of the forecast page are links for actions that you can take. For example, you can go “Back to Spot List” to return to the monitor page. If you are at the same computer that made the original request, you can click on “Change Request” to change the details of your request, or “Delete Request” to delete the request.

You can also click on “Copy Info to New Spot Request.” This is helpful for burns that last several days. Rather than having to re-enter the data in the form in order to get a new forecast - you can view the previous forecast and then copy all the location parameters to a new request using this link. This will save you some time when filling out the request form.

Invariably, something will go wrong at some point, and you might not be able to request or receive spot requests via the webpage (for example, your computers might go down, or our web server may fail). In such cases, we would like you to fill out the paper version of the request form (as it appears on the next page) and fax it to us. We will fax you back the forecast when it is complete. Please keep in mind that this should be used as a last resort. Spot Forecast Requests received via the webpage will be completed more quickly.

